

REMARKS

The present communication is responsive to the Official Action mailed December 29, 2009, rejecting all of the claims pending in the application ("Office Action"). Claims 1 and 10 are amended. Claims 1-20 are pending in this application.

The Examiner rejected claims 1-20 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner indicated that the support for "the audio signal at the second point in the sound field is suppressed relative to the frequency response to the audio signal at the first point in the sound field" is not found in the paragraph [0086] of the specification. The above feature is removed from the independent claims 1 and 10 in this amendment. Therefore, it is respectfully submitted that the 112 first paragraph rejection on claims 1 and 10 should be withdrawn. Other claims are dependent from claims 1 and 10. Thus, it is respectfully submitted that the 112 first paragraph rejection on these dependent claims should also be withdrawn.

Claims 1-4 and 10-13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bienek et al. (WO 02/078388 A2) in view of North (U.S. 6,801,631) and in further view of Kunugi et al. (U.S. 4,868,878).

Amended independent claim 1 now recites in part:

An audio signal processing method comprising the steps of:

supplying an audio signal to each of a plurality of digital filters, the digital filters corresponding to respective amplitude characteristics;

adjusting at least one amplitude characteristic of the plurality of digital filters such that the frequency response to the audio signal at a second point in the sound field is lower than the frequency response to the audio signal at the first point in the sound field, where the at least one amplitude characteristic is estimated by predicting a sample count of the signal at the second point and selecting effective ones of the amplitude characteristics corresponding to the sample count; and

adjusting cut-off frequency of a variable high pass filter and the delay time in each of the digital filters based on the adjusted amplitude characteristics.

(Emphasis added).

The other independent claim 10 is amended in a similar way. The above-identified features are believed to be described, for example, in paragraphs [0072]-[0079] and [0088]-[0089] of the specification and in FIGS. 8, 10-12 of the present application.

In accordance with the present claim 1, an audio signal processing method comprising the steps of adjusting at least one amplitude characteristic of the plurality of digital filters such that the frequency response to the audio signal at a second point in the sound field is lower than the frequency response to the audio signal at the first point in the sound field. The at least one amplitude characteristic is estimated by predicting a sample count of the signal at the second point and selecting effective ones of the amplitude characteristics corresponding to the sample count. The method also comprises the step of adjusting cut-off frequency of a variable high pass filter and the delay time in each of the digital filters based on the adjusted amplitude characteristics.

It is respectfully submitted that the combination of Bienek and North, as applied by the Examiner, does not teach a signal processing method comprising the steps of estimating at least one amplitude characteristic by predicting a sample count of the signal at the second point, selecting effective ones of the amplitude characteristics corresponding to the sample count, and adjusting cut-off frequency of a variable high pass filter and the delay time in each of the digital filters based on the adjusted amplitude characteristic.

For at least the reasons described above, it is respectfully requested that the independent claims 1 and 10, as well as the claims that depend from them, are distinguishable over Bienek and North, and therefore the 103 rejections on these claims should be withdrawn.

Claims 5-9 and 14-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bienek in view of North, Kunugi and in further view of Masako et al. (JP-8-191225-A). Masako, as applied by the Examiner, is not relied upon to cure the above deficiency of Bienek and Kunugi. As stated before, these dependent claims and the base claims are distinguishable over Bienek and Kunugi. Therefore, these dependent claims are also distinguishable over the combination of Bienek and Kunugi and Masako. Accordingly, it is respectfully submitted that the 103 rejection on these dependent claims has been overcome and should be withdrawn.

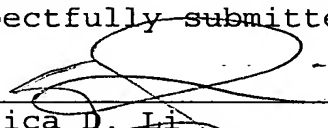
As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he/she telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: March 29, 2010

Respectfully submitted,

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